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# Predictors of tobacco smuggling in the South Wales Valleys

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## Introduction

Smoking is the leading cause of preventable death and illness across Wales and is a major contributor to health inequalities. Around 600,000<sup>1</sup> adults or 24%<sup>2</sup> of the adult population in Wales are smokers. It is estimated that some 5,650 people die in Wales each year as a result of smoking<sup>3</sup>. Wales has the highest rates of chronic illness in the UK<sup>4</sup>, much of it caused or exacerbated by smoking. Wales has the highest rates of smoking in pregnancy<sup>5</sup>, and amongst the highest rates of lung cancer for all of the developed countries<sup>6</sup>.

### Tobacco smuggling in Wales

Tobacco smuggling constitutes a serious public health risk by undermining initiatives aimed at reducing tobacco consumption. Smuggled tobacco is most likely to be sold in deprived areas where rates of tobacco consumption are already creating significant ill health.

Anecdotally there is evidence that people are able to buy illicit tobacco easily in Wales however to date, there has been no large scale survey of smokers investigating this. In a small survey of young smokers aged up to 18 across South Wales in 2008, 1 in 8 young people indicated they were purchasing cigarettes at a price of £3.50 or less (the Recommended Retail Price for a typical packet of 20 cigarettes was £5.44 at the time) – strongly suggesting that smuggled tobacco products are widely available to young people<sup>7</sup>. Furthermore, 7% of young smokers said they were able to purchase single cigarettes as cheaply as 30p per cigarette.<sup>8</sup>

Recent headlines in the media from Wales demonstrate just how tobacco products are entering Wales:

- ✓ *Statues Used To Smuggle Cigarettes*<sup>9</sup>
- ✓ *Pair jailed for attempting to smuggle cigarettes hidden in doors*<sup>10</sup>

<sup>1</sup> *Smoking in Wales: Current Facts* Published by Wales Centre for Health Nov 2007 accessed at <http://www.wales.nhs.uk/sites3/Documents/568/WCH%20smoking%20ban%20report%20E%20final.pdf>

<sup>2</sup> Welsh Health Survey 2008. Statistics for Wales. Accessed at: <http://wales.gov.uk/topics/statistics/headlines/health2009/hdw200905211/?lang=en>

<sup>3</sup> *Chief Medical Officer for Wales Annual Report 2009* accessed at <http://www.wales.nhs.uk/documents/CMO-annual-report-2009-e.pdf>

<sup>4</sup> *Improving Health and the Management of Chronic Conditions in Wales: An Integrated Model and Framework for Action* accessed at <http://new.wales.gov.uk/dhss/publications/health/strategies/chronicconditions/chronicconditionse.pdf?lang=en>

<sup>5</sup> *Smoking in Wales: Current Facts* Published by Wales Centre for Health Nov 2007 accessed at <http://www.wales.nhs.uk/sites3/Documents/568/WCH%20smoking%20ban%20report%20E%20final.pdf>

<sup>6</sup> *Cancer in Wales, 1992-2006: A Comprehensive Report*. Welsh Cancer Intelligence and Surveillance Unit, September 2008. accessed at [http://www.wales.nhs.uk/sites3/Documents/242/WCISUTriennialReport2008\\_English.pdf](http://www.wales.nhs.uk/sites3/Documents/242/WCISUTriennialReport2008_English.pdf)

<sup>7</sup> Faith Youth Survey of young smokers aged 11-17 years in Caerphilly, Cardiff, Merthyr Tydfil, Rhondda Cynon Taff and Blaenau Gwent between 1 June and 30 June 2008

<sup>8</sup> Faith Youth Survey of young smokers aged 11-17 years in Caerphilly, Cardiff, Merthyr Tydfil, Rhondda Cynon Taff and Blaenau Gwent between 1 June and 30 June 2008

<sup>9</sup> <http://www.walesonline.co.uk/news/cardiff-news/2009/11/03/statues-used-to-smuggle-cigarettes-91466-25076179/>

<sup>10</sup> <http://www.walesonline.co.uk/news/wales-news/2009/08/29/pair-jailed-for-attempting-to-smuggle-cigarettes-hidden-in-doors-91466-24559258/>

- ✓ Couple accused of smuggling 857,000 cigarettes<sup>11</sup>
- ✓ Four million fake ciggies discovered in toy crate<sup>12</sup>

In the space of one week in November 2008, Welsh Trading Standards officers in twelve South East Wales authorities conducted authenticity checks on over 54,000 packs of cigarettes and hand rolling tobacco. As a result of this work, over 45,000 cigarettes and 144kg of hand rolling tobacco were seized<sup>13</sup>.

There are different types of illicit trade in tobacco products. These include large scale smuggling, bootlegging and counterfeit smuggling. Not all smuggling involves counterfeit products. Smuggled products may also be UK manufactured tobacco products that have been diverted to the black market.

### Definitions

- ✓ Smuggling is the illegal transport and distribution of tobacco products, usually without payment of correct government taxes. Smuggling can be large scale or small bootlegging operations.
- ✓ Counterfeiting is the illegal production of “fake” brand cigarettes without the consent of the brand owner.

Cheap and illicit tobacco undermines price (tax) and other tobacco control measures such as age of sale regulations. The criminal activities of smuggling, and increasingly, counterfeiting, lead to the availability of tobacco at less than half the tax-paid price in many deprived areas. This maintains smokers in their addiction and encourages young people to start smoking. It is estimated that 11.6% of all internationally traded cigarettes are smuggled, equivalent to 657 billion cigarettes a year, causing losses to government revenue worldwide of US\$40.5 billion<sup>14</sup>.

In the UK by the late 1990s, cigarette smuggling had reached epidemic proportions. The tobacco industry estimated that 25%-30% of the total market was made up of illegally imported cigarettes<sup>15</sup> although Customs & Excise estimated the figure to be no more than

<sup>11</sup> <http://www.walesonline.co.uk/news/wales-news/2009/10/28/couple-accused-of-smuggling-857-000-cigarettes-91466-25037304/>

<sup>12</sup> <http://www.walesonline.co.uk/news/wales-news/2009/10/23/four-million-fake-ciggies-discovered-in-toy-crate-91466-24995837/>

<sup>13</sup> Trading standards at your council. LACORS 2009. accessed at:

<http://www.north-ayrshire.gov.uk/Documents/CorporateServices/LegalProtective/TradingStandards/LACORS.pdf>

<sup>14</sup> Joossens L, Merriman D, Ross H, Raw M. How eliminating the global illicit cigarette trade would increase tax revenue and save lives. Paris: International Union Against Tuberculosis and Lung Disease, 2009

<sup>15</sup> The Black Market in Tobacco Products. DTZ Pleda Consulting, May 2000

21%<sup>16</sup>. Tobacco smuggling was costing the Government more than £3 billion a year in lost revenue<sup>17</sup>.

Cutting tobacco tax cannot solve the problem of smuggling. Even if all countries levelled exactly the same level of taxes and had identical prices, smuggling would still continue at a large scale. The total illicit cigarette market in high income countries is 9.8% compared to 16.8% in low income countries<sup>18</sup>. It has been estimated that if the global illicit trade were eliminated, governments would gain at least \$31 billion, and from 2030 onwards would save over 160,000 lives a year<sup>19</sup>.

## Methods

### Aim of the research

To develop a better understanding of smokers' attitudes to illegal and counterfeit tobacco and their buying habits in the South Wales Valleys.

### Survey design

- 505 telephone interviews were conducted with smokers aged 16+ resident in the South Wales Valley Unitary Authorities of Caerphilly, Rhondda Cynon Taff, Merthyr Tydfil, Blaenau Gwent and Torfaen.
- All interviews were conducted by Beaufort Research in April/May 2010.
- Welsh Health Survey data was used to derive a stratified sampling frame for smokers based on an age, gender and unitary authority.
- Quotas were set on age within gender and region (LA) to ensure that sample profile accurately reflects that of smokers.
- Using latest published data from the Welsh Health Survey on the age/gender profile of smokers as the basis for the quota setting.

### Survey questions

Smokers across the South Wales Valleys were asked questions on; where they buy their cigarettes, how much they pay for their cigarettes, and how often they buy cheap cigarettes.

For the full list of survey questions please see [Appendix 1](#)

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<sup>16</sup> HM Customs & Excise Annual Report 2000-2001

<sup>17</sup> ASH. Essential information on: Tobacco smuggling. ASH 2010.

<sup>18</sup> Joossens L, Merriman D, Ross H, Raw M. How eliminating the global illicit cigarette trade would increase tax revenue and save lives. Paris: International Union Against Tuberculosis and Lung Disease, 2009

<sup>19</sup> Joossens L, Merriman D, Ross H, Raw M. How eliminating the global illicit cigarette trade would increase tax revenue and save lives. Paris: International Union Against Tuberculosis and Lung Disease, 2009

## Results

### Headline results

- 24% of people had bought cigarettes or tobacco products bought abroad and brought back to the UK by someone else that was not a friend or a relative,
- 24% of people had bought cigarettes or loose tobacco that were a UK brand but were a lot cheaper than could be found in UK shops,
- 13% of people had bought a foreign brand of cigarettes or tobacco not normally found in the UK,
- 9% of people had bought genuine cigarettes or tobacco products that they knew were smuggled into the UK,
- 8% of people had bought cigarettes or loose tobacco that they knew were fake or counterfeit,
- 68% of people reported that when buying cigarettes or loose tobacco the factor most important to them was cost

### Further Analysis

Further analysis was carried out on Question 4 to determine the predictors of tobacco smuggling in the South Wales Valleys.

**Q4.** Thinking about all the ways you may have bought cigarettes or loose tobacco in the last year, please tell me which of the following you have personally bought...?

### Dependent variable

	Coding		
	Yes	No	DK
a) Cigarettes or loose tobacco that you've known is fake or counterfeit	1	2	3
b) Genuine cigarettes or tobacco products that have been smuggled into the UK	1	2	3
c) Cigarettes or tobacco products a <u>friend or relative</u> has bought abroad and brought back to the UK	1	2	3
d) Cigarettes or tobacco products bought abroad and brought back to the UK by <u>someone else</u>	1	2	3
e) A foreign brand of cigarettes or tobacco not normally found in the UK	1	2	3
f) A UK brand of cigarettes or loose tobacco, but a lot cheaper than you'd normally find in UK shops	1	2	3

### Independent variables

The following independent variables were considered as potentially being of value in explaining the dependent variable:

- Exact age was recorded in the original dataset, but for the quota sampling purposes was reduced to three age bands (16-34, 35-54, 55+).
- The occupation of the chief income earner within the household was asked in the questionnaire. In the original dataset this had been coded to social class in four groups (AB, C1, C2, DE).
- Gender was recorded in the original dataset.
- The average number of cigarettes smoked per day was recorded in the original dataset. This was recoded to three groups (up to half a pack (of 20), between half and a whole pack (of 20), more than a whole pack (of 20)).
- The use of hand rolling tobacco was recorded in the original dataset.



## Univariate analysis

The dependent variable was tested for association with the independent variables with the following results:

- Ageband – over half (52%) of the 16-34 year olds had bought cheap tobacco compared to 41% of the 35-54 year olds and 36% of the over 55's (Chi squared test  $p = 0.01$ ).
- Social class – There was no statistically significant differences between the social classes with percentages buying cheap tobacco varying from 38% to 45% (Chi squared test  $p = 0.61$ ).
- Gender – There was no statistically significant differences between the genders with percentages buying cheap tobacco for males being 47% and for female 40% (Chi squared test  $p = 0.10$ ).
- **Cigarettes smoked per day – There were no statistically significant differences between the levels with all groups at 44% buying cheap tobacco (Chi squared test  $p = 0.99$ ).**
- Hand rolling tobacco – There was a statistically significant differences between the those that do use hand rolling tobacco (59% bought cheap tobacco) and those that didn't use hand rolling tobacco (36% bought cheap tobacco) (Chi squared test  $p < 0.001$ ). i.e. hand rolled tobacco is more likely to be smuggled/counterfeit.

## Multivariate analysis

Each independent variable was run in a logistic regression model on its own and then a single saturated model was evaluated for the combined cheap tobacco indicator and each individual indicator.

### Bought any cheap tobacco

Variable	Odds ratio	t	p	95% CI
Use hand rolling tobacco	2.55	4.45	<0.001	1.69 - 3.85
Age	0.98	-2.97	0.004	0.97 - 0.99

### Bought cigarettes or tobacco products that they knew to be fake or counterfeit

Variable	Odds ratio	t	p	95% CI
Cigarettes per day	1.81	2.55	0.011	1.15- 2.86
Age	0.92	-4.71	<0.001	0.89 - 0.95

### Bought cigarettes or tobacco products that had been smuggled into the UK

Variable	Odds ratio	t	p	95% CI
Use hand rolling tobacco	2.02	2.07	0.039	1.04- 3.96
Age	0.97	-2.76	0.006	0.95 - 0.99

### Bought cigarettes or tobacco products that a friend or relative had brought abroad and had brought back to the UK

Variable	Odds ratio	t	p	95% CI
Age	0.98	-3.36	0.001	0.96 - 0.99

### Bought cigarettes or tobacco products that someone else had brought abroad and had brought back to the UK

Variable	Odds ratio	t	p	95% CI
Use hand rolling tobacco	1.73	2.35	0.019	1.09 - 2.74
Age	0.97	-4.09	<0.001	0.95 - 0.98

### Bought cigarettes or tobacco products that was a foreign brand not normally found in the UK

Variable	Odds ratio	t	p	95% CI
Use hand rolling tobacco	2.28	2.67	0.008	1.24 - 4.18
Age	0.95	-4.35	<0.001	0.92 - 0.97
Cigarettes per day	1.70	2.87	0.004	1.18 - 2.43

### Bought cigarettes or tobacco products that was a UK brand but a lot cheaper than it would usually be in a UK shop

Variable	Odds ratio	t	p	95% CI
Use hand rolling tobacco	1.79	2.53	0.012	1.14 – 2.82

- All of these analyses were run on the saturated model and so were adjusted for age, gender, hand rolling tobacco use, cigarettes smoked per day and social class.
- Age and the use of hand rolling tobacco are clearly the best indicators of all of these sources of tobacco with the likelihood decreasing as age increases and being much greater for those who use hand rolling tobacco.

- The number of cigarettes smoked per day was a significant factor for known fake and foreign brands.
- Gender and social class had no significance in terms of these sources of tobacco.

## Conclusions

This analysis suggests that the young, those that use hand rolling tobacco and the heaviest smokers are the most likely to purchase tobacco products that are fake, smuggled or have arrived legitimately but should not have been resold. There are no differences between the genders or those of different social classes. This result is plausible and as such is not unexpected.

As shown above, this research indicates that tobacco smuggling is occurring in the South Wales Valleys and further contributing to poor health outcomes. However there is not a good understanding of the illicit tobacco market in Wales, and there needs to be further research to inform the development of future campaigns to tackle the supply of and demand for illegal tobacco products.

Smoking prevalence rates are already much higher in the research and are already creating significant ill health for residents. Unfortunately, the evidence from this report indicates that measures to protect children from accessing age restricted tobacco products are being undermined by tobacco smuggling.

Tobacco smuggling is a very complex issue and there are many factors which impact on the presence of smuggled tobacco including the presence of organised crime, effective enforcement, effective intelligence networks etc. We need a co-ordinated multi agency approach to tackle large scale organised smuggling. It is vital that the Welsh Assembly Government's Tobacco Control Action Plan addresses tobacco smuggling and that they work closely with the UK government on this issue. There is no evidence that banning the display of tobacco products behind the counter increases tobacco smuggling.

It is also important that Trading Standards across Wales are funded to conduct ongoing tobacco control operations including test purchasing and authenticity work. A register of tobacco retailers would provide an additional level of transparency about genuine tobacco retailers. The Welsh public are concerned about this issue with 75% of adults supporting a crackdown on tobacco smuggling<sup>20</sup>.

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<sup>20</sup> YouGov Plc. Total sample size 1115 adults. Fieldwork was undertaken between 17th and 22nd March 2010. The survey was carried out online. Results available from ASH Wales.

## Further Research

ASH Wales would like to build on the small scale illicit tobacco research in Wales and help to gain a better understanding of the following:

- The people purchasing illicit tobacco products;
- Their motivation for doing so;
- The groups most likely to be persuaded to stop buying these products;
- The groups most likely to be persuaded into providing information to the authorities about selling illicit tobacco;
- The awareness of and attitudes to the issues involved;
- The awareness of current enforcement activities and the prospect and implications of being caught. What would be a credible threat of arrest and subsequent penalties in making them change their behaviour?;
- The messaging most effective in deterring smokers from buying counterfeit and smuggled products;
- Who would be their most effective 'messengers' and channels;
- The best approach for engaging the wider community, smokers and non-smokers alike, in addressing this problem.
- Understanding their perceptions about the impact of illicit tobacco on their community, especially children.

## Limitations of the study

**There are several caveats to bear in mind when considering the findings presented in this report. Firstly, the exact processes behind the original data collection are not explicit and so these results should be taken with caution. This in turn may have an impact on the validity of the analysis.**

**A second consideration is that the nature of the data means that the analysis had to be conducted in a manner that accounts for the sampling design. This invalidates many of the standard techniques for evaluating model fit and as such no comparisons of models have been made here.**

## Appendix 1: Survey questions

### Cheap and Illicit Cigarettes and Tobacco Survey

#### QUESTIONNAIRE

INTRODUCTION: Hello. My name is..... from Beaufort Research. We are conducting a survey among smokers on behalf of a charity in Wales to get a better understanding of cigarette and tobacco purchasing in Wales. Do you have time to answer some questions? It will only take about 5 minutes and any answers will be for statistical use only and your anonymity and confidentiality guaranteed.

**S1.** Firstly, can I check, do you ever smoke cigarettes (packet or roll-your own) or use any other tobacco products?

Yes → CONTINUE

No → THANK & CLOSE

**S2.** And to make sure we interview a representative sample of people, may I take your age?

RECORD EXACT AGE

\_\_\_\_\_

CODE AGE BAND (QUOTA CHECK)

16 to 17

18 to 24

25 to 34

35 to 44

45 to 54

55 to 64

65+

**S3.** CODE GENDER (QUOTA CHECK)

Male

Female

**Q1a.** Which of the following tobacco products do you use?

READ OUT ALL & CODE ALL MENTIONED

1. Cigarettes → b)
2. Roll your own tobacco → c)
3. Tobacco combined with another product
4. Cigars, cigarillos or pipe
5. Chewing tobacco
6. Shisha
7. Other (PLEASE WRITE IN)

**Q1b.** From which of the following sources do you buy cigarettes...?

READ OUT ALL

1. A small convenience shop
2. A supermarket
3. An alternative source, such as a street trader, friend or associate
4. Somewhere else (please specify)

**Q1c.** From which of the following sources do you buy roll your own tobacco...?

READ OUT ALL

1. A small convenience shop
2. A supermarket
3. An alternative source, such as a street trader, friend or associate
4. Somewhere else (please specify)

**ASK IF SMOKE CIGARETTES / ROLL YOUR OWN (CODES 1 to 5 @ Q1)**

**Q2.** On average how many cigarettes do you smoke a day?

\_\_\_\_\_

Don't know

Refused

**Q3.** How much would you say you spend on tobacco products a week?

WRITE IN, IN POUNDS.

£ \_\_\_\_\_

Don't know

Refused

**Q4.** Thinking about all the ways you may have bought cigarettes or loose tobacco in the last year, please tell me which of the following you have personally bought...?

READ OUT (ORDER ROTATED)

	Yes	No	DK
a) Cigarettes or lose tobacco that you've known is fake or counterfeit	1	2	3
b) Genuine cigarettes or tobacco products that have been smuggled into the UK	1	2	3
c) Cigarettes or tobacco products a <u>friend or relative</u> has bought abroad and brought back to the UK	1	2	3
d) Cigarettes or tobacco products bought abroad and brought back to the UK by <u>someone else</u>	1	2	3
e) A foreign brand of cigarettes or tobacco not normally found in the UK	1	2	3
f) A UK brand of cigarettes or loose tobacco, but a lot cheaper than you'd normally find in UK shops	1	2	3

**ASK Q5 TO Q8 IF ANY 'YES' MENTIONED AT Q4 (OTHERS GO TO Q9)**

**Q5.** Thinking about purchasing the types of cigarettes or loose tobacco you've just mentioned, that is...

[SHOW (shortened) 'YES' ANSWERS FROM Q4 ON SCREEN]

In the last 12 months, approximately how many times have you bought cigarettes or loose tobacco [in any of these ways/ this way]?

Once

Twice

Three times

Four times

Five to nine times

Ten or more times

Don't know

**Q6.** When buying... [SHOW (shortened) 'YES' ANSWERS FROM Q4 ON SCREEN]

From which of the following sources do you buy....?

READ OUT ALL & CODE EACH MENTIONED

Friend

Work colleague

Family member

A shop

Pub / club

Fag / tab house

Street hawker (approached by seller)

Internet

Other (please specify)



*[will establish if always buy from single source from number of mentions at Q6]*

**Q7.** And when purchasing...

[SHOW (shortened) 'YES' ANSWERS FROM Q4 ON SCREEN]

Which of the following factors is most important to you...?

READ OUT (ORDER RANDOMISED)

Trust

Availability

Cost

Convenience

**Q8.** Excluding any duty free bought by yourself, approximately what proportion of your cigarettes or tobacco would you say comes from sources other than legitimate shops and supermarkets in the UK?

What proportion of the cigarettes or tobacco would you say is [SHOW (shortened) 'YES' ANSWERS FROM Q4 ON SCREEN]

READ OUT AS NECCESARY

[SCALE TO BE INVERTED BETWEEN RESPONDENTS]

All

Almost all

About three quarters

Around half

About a quarter

Less than a quarter

None

**Q9.** In the last 12 months, how many times have you brought cigarettes or hand rolling tobacco back to the UK from abroad?

None

Once

Twice

Three times

Four times

Five to nine times

Ten or more times

Don't know

SOCIAL CLASS (Based on occupation of chief income earner)

**QX.** To ensure we are speaking to a representative sample of people, can you tell me the occupation of the Chief Income Earner within the household?

(The Chief Income Earner is the member of the household with the largest income, whether from employment, pensions, state benefits, investments or any other source).

NOTE: IF CHIEF INCOME EARNER IS RETIRED OR REGISTERED UNEMPLOYED, ASK FOR PREVIOUS OCCUPATION

WRITE IN

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**QY.** And finally, what is your postcode?

IF RESPONDENT UNWILLING TO GIVE FULL POSTCODE PLEASE ASK FOR FIRST PART ONLY

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**THANK & CLOSE**

Thank you for your time. Just to confirm that my name is [interviewer name] calling from Beaufort Research and that this survey has been conducted according to the Market Research Society Code of Conduct. If you'd like to check our credentials, you can telephone the MRS via the freephone number 0500 39 69 99. Thanks again and goodbye.